

REMARKS

Claims 1, 3-8 and 10-19 remain pending in the present application. Claims 2 and 9 have been cancelled. Claims 1, 3-6, 8, 11 and 13-19 have been amended. Basis for the amendments can be found throughout the specification, claims and drawings as originally filed.

CLAIM OBJECTIONS

Claims 1-13, 15 and 19 are objected to because of informalities. The claims have been amended to overcome the objection. Withdrawal of the objection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 112

Claims 1-10, 13 and 19 are rejected under 35 U.S.C. § 112, first paragraph, because the claims recite single means without combining with another recited element or means. Claim 2 has been cancelled and its limitations have been combined with Claim 1 and the combined claim has been amended to overcome the rejection. In addition, Claims 3-5 have also been amended to overcome the rejection. Reconsideration of the rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 102

Claims 1, 5, 14 and 16 are rejected under 35 U.S.C. § 102(e) as being anticipated by Haardt, et al. (U.S. Pat. No. 6,311,043). Applicants respectfully traverse this rejection. Claim 1 has been amended by adding the limitations of Claim 2 to Claim

1 and Claim 2 has been cancelled. Since there were no prior art rejections for Claim 2, Applicants believe that the combination of Claims 1 and 2, amended to overcome the 35 U.S.C. § 112 rejections, patentably distinguishes over the art of record. Likewise, Claim 5, which depends from Claim 1, is also believed to patentably distinguish over the art of record. Reconsideration of the rejection is respectfully requested.

Claim 17 depended from Claim 14. Claim 17 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and overcome the claim objections. Claim 14 has been amended to include the limitations of Claim 17. Thus, Applicants believe amended Claim 14 patentably distinguishes over the art of record. Reconsideration of the rejection is respectfully requested.

Claim 18 depended from Claim 16. Claim 18 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and overcome the claim objections. Claim 16 has been amended to include the limitations of Claim 18. Thus, Applicants believe Claim 16, as amended, patentably distinguishes over the art of record. Reconsideration of the rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 4 and 9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Haardt, et al. (U.S. Pat. No. 6,311,043) in view of Kuwahara (U.S. Pat. No. 6,084,928). Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Haardt, et al. (U.S. Pat. No. 6,311,043) in view of Fujimoto, et al. (U.S. Pat. No.

6,115,426). Claim 19 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Haardt, et al. (U.S. Pat. No. 6,311,043) in view of Li, et al. (U.S. Pat. No. 6,587,526). Claims 4, 10 and 19 depend from Claim 1. As stated above, Claim 1 has been amended and is now believed to be allowable. Thus, Claims 4, 10 and 19 are also believed to be allowable. Claim 9 has been cancelled.

ALLOWABLE SUBJECT MATTER

Claim 2 was only rejected under 35 U.S.C. § 112. As detailed above, Claim 2 has been cancelled and its limitations have been added to Claim 1 and amended Claim 1 has been further amended to overcome the 35 U.S.C. § 112 rejection.

Claim 3 depended from Claim 1. Claim 3 was only rejected using 35 U.S.C. § 112. Claim 3 has been amended to independent form to include the limitations of original Claim 1 and amended Claim 3 has been further amended to overcome the 35 U.S.C. § 112 rejection.

Claims 4 and 5 depend from Claim 1 which has been amended and is now believed to be allowable.

Claim 6 depended from Claim 1. Claim 6 was only rejected using 35 U.S.C. § 112. Claim 6 has been amended to independent form to include the limitations of original Claim 1 and amended Claim 6 has been further amended to overcome the 35 U.S.C. § 112 rejection. Claim 7 depends from Claim 6.

Claim 8 depended from Claim 1. Claim 8 was only rejected using 35 U.S.C. § 112. Claim 8 has been amended to independent form to include the limitations of original Claim

1 and amended Claim 8 has been further amended to overcome the 35 U.S.C. § 112 rejection.

Claim 9 has been cancelled.

Claim 10 depend from Claim 1 which has been amended and is now believed to be allowable.

Claims 11 and 12 would be allowable if rewritten or amended to overcome the claim objections set forth in this Office Action. Claim 11 has been amended to overcome the objections. Claim 12 depended from Claim 11.

Claim 13 depended from Claim 10 which depended from Claim 1. Claim 13 was only rejected under 35 U.S.C. § 112. Claim 13 has been amended to include the limitations of original Claims 1 and 10 and amended Claim 13 has been further amended to overcome the 35 U.S.C. § 112 rejections.

Claim 14 has been amended to include the limitations of Claim 17 which was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and overcome the claim objections.

Claim 15 would be allowable if rewritten or amended to overcome the claim objections set forth in this Office Action. Claim 15 has been amended to overcome the objections.

Claim 16 has been amended to include the limitations of Claim 18 which was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and overcome the claim objections.

Claim 17 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and overcome the claim objections. Claim 17 depended from Claim 16. Claim 17 has been amended to independent form to include the limitations of Claim 16.

Claim 18 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and overcome the claim objections. Claim 18 depended from Claim 14. Claim 18 has been amended to independent form to include the limitations of Claim 14.

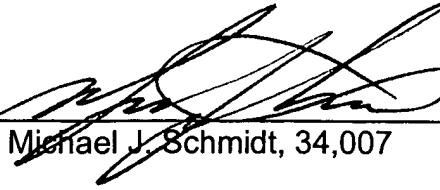
Claim 19 has been amended to depend from any one of Claims 1, 3, 6, 8, 11, 14, 15 and 16.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

By:


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